Regional San South Sacramento County Agricultural and Habitat Lands Recycled Water, Groundwater Storage, and Conjunctive Use Program

- Schedule -

Feasibility and Implementation Risk Tab A.3

The project as described in this Application is scheduled to begin in 2018, given completion of the Facilities Planning and Programmatic Environmental Review by the end of 2017. Key schedule items are described as follow:

Engineering Planning, Environmental, Design and Construction

- Preliminary Design Report – This task will begin, according to the Facilities Plan, in the very beginning of 2018. This PDR will take the Facilities Plan project elements from a 10-percent level of design to a 25 to 30-percent design level to support project level environmental review, permitting, and preparation for entering the Final Design phase of the project.
- Initiate Permitting and Environmental Review – Regional San will initiate planning and negotiations with regulatory and trustee agencies (DWR, SWRCB, CDFW) immediately upon Conditional Approval by the California Water Commission. Once the PDR is underway, Regional San will be prepared to begin the work of project-specific environmental review of each phase of the project, or if funding is available for the entire project through WSIP, and the contracting can be accomplished fully in 2018 and 2019, the entire 4-phased project all at once.
- Final Design, South County Ag Pump Station (SCAPS) – In mid-2019, design of the pump station would be scheduled to begin on the site of the ECHO Water Advanced Wastewater Treatment Plant.
- Bid and Construction of SCAPS – In early 2020, bidding and construction of the SCAPS would begin with completion by mid-2021.
- Final Permitting and Environmental, Phase 1 – With the completion of the PDR, environmental documentation on Phase 1 will begin. As mentioned above, under "Initiate Permitting and Environmental Review", if funding were available for the entire project, final permitting and environmental review for the entire 4 phases could begin.
- Final Design, Phase 1 – Phase 1 includes the entire northern section of the project, extending from the properties abutting I-5 on the west, to the properties along Highway 99 and the Cosumnes River on the east. Refer to Figure 4-2 in the Facilities Plan for a map of the 4-phased project layout. If the wildlife friendly groundwater recharge basin can be sited in this first phase, recycled water would be able to be delivered to this user in Phase 1. If permitting with the State Water Board and siting of the recharge site were delayed, it could be connected in Phase 2 or a subsequent phase. Finally, if the Stone Lakes Wildlife Refuge water supply agreement were to be able to be completed by mid-2019, Phase 1 could be extended south of Eschinger to include the Lambert Road extension to Stone Lakes (which was originally slated for Phase 4).
- Bid, Construction and Startup, Phase 1 – In March 2020, bidding and construction of the Phase 1 Pipeline, connecting to SCAPS, and extending to cover the Phase 1 project area, would begin with completion by June, 2022. Startup would be conducted with limited recycled water supply from current facilities, with full startup enabled with the completion of the ECHO Water Project.
- Final Permitting and Environmental, Phase 2 – Assuming the entire project is not all covered environmentally at a project-level in one phase, and as the project nears construction completion in early 2022, in February 2022, final permitting and environmental work for Phase 2 will begin, with completion scheduled for May 2023; this coincides with Final Design completion since some of the permits (Stream crossing permits, for example) will require near final design drawings to be completed.

- Final Design, Phase 2 – Phase 2 includes the extension of the lateral pipelines to the lands south of Escinger but north of Lambert and east to the Cosumnes River, to serve the southern portion of the Belcher property.
- Bid, Construction and Startup, Phase 2 – In November 2023, with Phase 1 in full operation, bidding and construction of the Phase 2 facilities would begin with completion by October 2024.
- Final Permitting and Environmental, Phase 3 – In early 2024, if not already completed, the Project level permitting and environmental work will begin as the completion of Phase 2 construction is anticipated later that year. Completion is scheduled for July, 2025.
- Final Design, Phase 3 - Phase 3 includes the extension of the main pipeline down Bruceville to Lambert and south of Lambert to Twin Cities Road. This allows the project to irrigate the southern-most properties in the system.
- Bid, Construction and Startup, Phase 3 – In November 2025, bidding and construction of the Phase 3 facilities would begin with completion by April 2027.
- Final Permitting and Environmental, Phase 4 – In March 2026, final permitting and environmental will be started on Phase 4, with completion scheduled for April 2028, in time for final design completion in October of that year.
- Final Design, Phase 4 – Phase 4 includes the extension on the west side of the system from Eschinger Road to Lambert Road, crossing to the west of I-5 over to Stone Lakes National Wildlife Refuge to supply the wetlands with recycled water.
- Bid, Construction and Startup, Phase 4 – In February 2029, bidding and construction of the Phase 4 facilities would begin with completion by April 2030.
- Design and Construction (Fast Track) – If Regional San were to be funded by WSIP, this opens up the possibility of implementing the design of the 4-phased project in one phase. In this case the project would be completed by mid-2023, and capable of delivering water when the ECHO Water project begins to provide the advanced treated water for discharge and reuse.

Planning and Governance

- Governance, Contracting, Legal – Regional San has been working with its stakeholders, including the Local Agency Formation Commission (LAFCO) to establish the governance of the project area and how its participating farmers will be assured service by the Project. The recommended governance structure is annexation of the area as a Zone of Benefit into the Regional San, but not for sewer service and wastewater treatment service. In addition, to pattern its arrangements with the different landowners and irrigators in the service area, Regional San is planning to set up individual user agreements with each land owner. Regional San has obtained Letters of Interest from the majority of land owners in the project area, and has established Draft Principles of Agreement which have been distributed to the Stakeholder Advisory Group. Starting at project initiation at 1/1/18, Regional San will use the Principles of Agreement to establish templates for individual user agreements and initiate the annexation process with LAFCO. For the next 4.5 years, Regional San will finalize the Agreements with the users in Phase 1, and attempt to line up as many of the Phase 2 thru 4 Agreements as possible by mid-2022. With project funding, Regional San is prepared to finalize all 100 user Agreements by mid-2022.

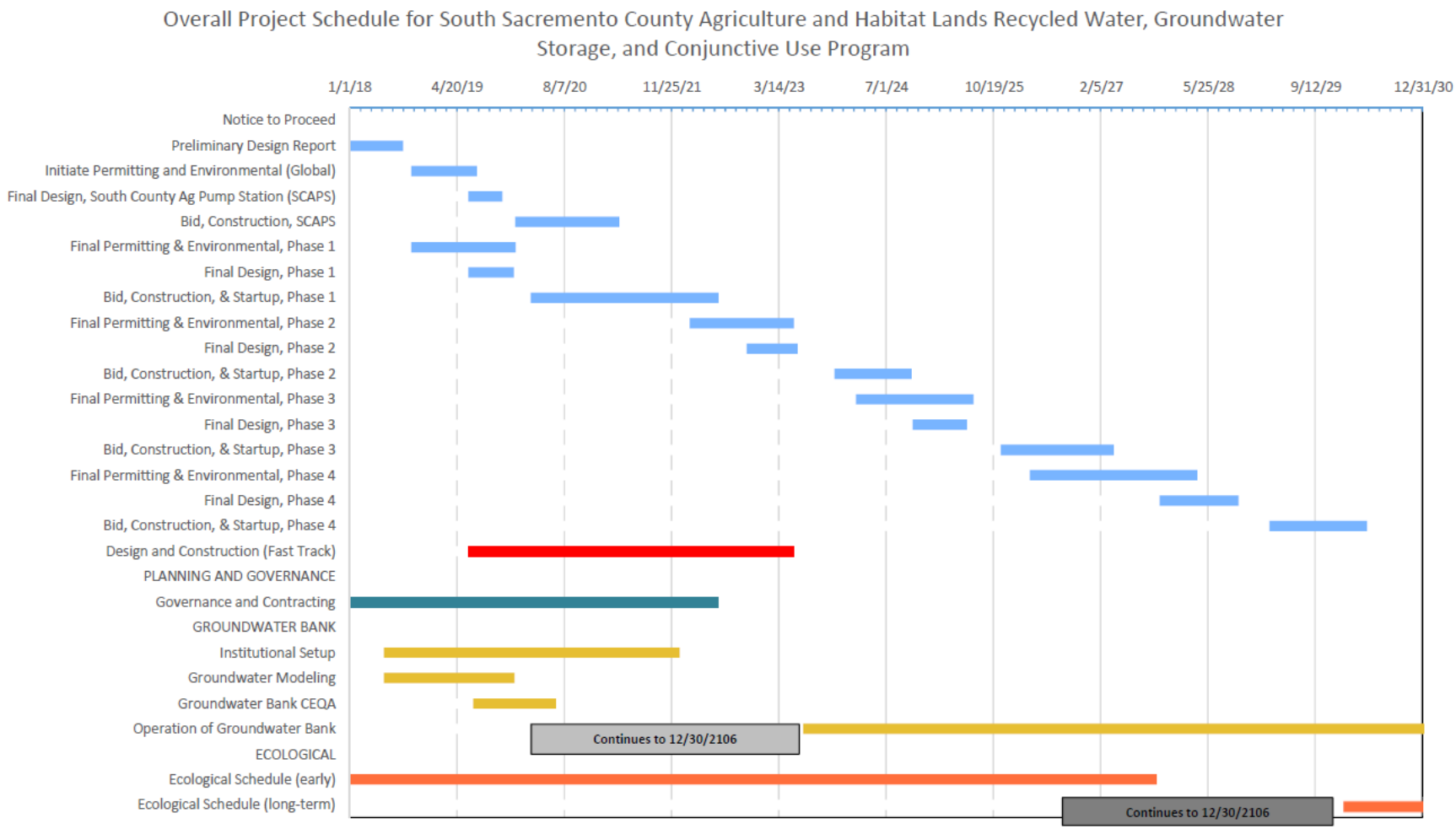
Groundwater Banking

- Institutional – The Sacramento Central Groundwater Authority (SCGA), of which Regional San is a member has begun a Groundwater Accounting Framework (GAF). In June 2018, the GAF will be accelerated to bring full implementation of the bank by the end of 2021.
- Groundwater Modeling – To provide the technical underpinning for the Groundwater Bank, Regional San will finance an update of the Groundwater Model for the Central Basin (South American Subbasin), including revisions and refinements for both the South American and Cosumnes Subbasins. Key stakeholders in the modeling effort will be the members of the SCGA who would be interested in participating in the bank along with Regional San.

- Groundwater Bank Environmental (– Regional San's EIR for the South County Agricultural and Habitat Lands Recycled Water Project has covered all elements of the Conjunctive Use and Groundwater Storage Project other than the Groundwater Bank. This Supplemental EIR would address the Groundwater Bank at a programmatic and project level and would be estimated to take 1 years, from mid-2019 to mid-2020.
- Groundwater Bank Operation and Management – Once the Groundwater Bank has been established, modeled, and obtained environmental clearance, the Bank will begin operations as it relates to monitoring groundwater levels, storage volumes, and parameters for use of the bank. Formal operation is anticipated to begin in Mid-2023 with the completion of construction and startup of the Phase 1 Recycled Water Facilities and supply of advanced treated water from the Echo Water Project.

Ecological

- Ecological Program and Establishment (early implementation) – The ecological plan implementation is organized around a 10-year ramped schedule, beginning 1/1/18 and is based on the relative sequencing of CEQA analysis, public outreach, landowner communications, coordination with regional planning efforts, refinement of the land management strategy and optimizing the program recharge water distribution. The plan and its land management framework are expected to be updated and completed within 6 months upon securing grant funding and associated contracting. To better leverage the communication efforts with local landowners, the program will apply an iterative participation software called BasinScout. Specifically for the project, the BasinScout software provides for the prioritization of conservation land values (habitat suitability, patch size, connectivity, etc.), while reducing the costs of implementation.
- Ecological Monitoring Program (ongoing operations**)** – BasinScout will continue to be used beyond early implementation, beginning in 2029 for ongoing ecological plan implementation and coordination. Monitoring results will be used to continue to refine Program implementation to achieve desired ecological outcomes.


Overall Project Schedule for South Sacramento County Agriculture and Habitat Lands Recycled Water, Groundwater Storage, and Conjunctive Use Program
1/1/18
4/20/19
8/7/20
11/25/21
3/14/23
7/1/24
10/19/25
2/5/27
5/25/28
9/12/29
12/31/30
Notice to Proceed
Preliminary Design Report
Initiate Permitting and Environmental (Global)
Final Design, South County Ag Pump Station (SCAPS)
Bid, Construction, SCAPS
Final Permitting & Environmental, Phase 1
Final Design, Phase 1
Bid, Construction, & Startup, Phase 1
Final Permitting & Environmental, Phase 2
Final Design, Phase 2
Bid, Construction, & Startup, Phase 2
Final Permitting & Environmental, Phase 3
Final Design, Phase 3
Bid, Construction, & Startup, Phase 3
Final Permitting & Environmental, Phase 4
Final Design, Phase 4
Bid, Construction, & Startup, Phase 4
Design and Construction (Fast Track)
PLANNING AND GOVERNANCE
Governance and Contracting
GROUNDWATER BANK
Institutional Setup
Groundwater Modeling
Groundwater Bank CEQA
Operation of Groundwater Bank
Continues to 12/30/2106
ECOLOGICAL
Ecological Schedule (early)
Ecological Schedule (long-term)
Continues to 12/30/2106

	Task Name	Start Date	End Date	Duration (Days)
1.0	Notice to Proceed	1/1/18	1/2/18	1
1.1	Preliminary Design Report	1/1/18	8/24/18	235
1.2	Initiate Permitting and Environmental (Global)	10/1/18	7/18/19	290
1.3	Final Design, South County Ag Pump Station (SCAPS)	6/10/19	11/7/19	150
1.4	Bid, Construction, SCAPS	1/3/20	4/7/21	460
1.5	Final Permitting & Environmental, Phase 1	10/1/18	1/4/20	460
1.6	Final Design, Phase 1	6/10/19	12/27/19	200
1.7	Bid, Construction, & Startup, Phase 1	3/13/20	6/21/22	830
1.8	Final Permitting & Environmental, Phase 2	2/14/22	5/20/23	460
1.9	Final Design, Phase 2	10/24/22	6/6/23	225
1.10	Bid, Construction, & Startup, Phase 2	11/17/23	10/22/24	340
1.11	Final Permitting & Environmental, Phase 3	2/19/24	7/23/25	520
1.12	Final Design, Phase 3	10/28/24	6/25/25	240
1.13	Bid, Construction, & Startup, Phase 3	11/21/25	4/5/27	500
1.14	Final Permitting & Environmental, Phase 4	3/30/26	4/8/28	740
1.15	Final Design, Phase 4	10/25/27	10/9/28	350
1.16	Bid, Construction, & Startup, Phase 4	2/23/29	4/29/30	430
1.17	*Design and Construction (Fast Track)*	6/10/19	5/20/23	1440
	PLANNING AND GOVERNANCE			
2.0	Governance and Contracting	1/1/18	6/21/22	1632
	GROUNDWATER BANK			
3.0	Institutional Setup	6/1/18	12/31/21	1309
3.1	Groundwater Modeling	6/1/18	12/31/19	578
3.2	Groundwater Bank CEQA	7/1/19	7/1/20	366
3.3	Operation of Groundwater Bank	7/1/23	12/31/70	17350
	ECOLOGICAL			
4.0	Ecological Schedule (early)	1/1/18	12/31/27	4382
4.1	Ecological Schedule (long-term)	1/1/30	12/31/70	14974